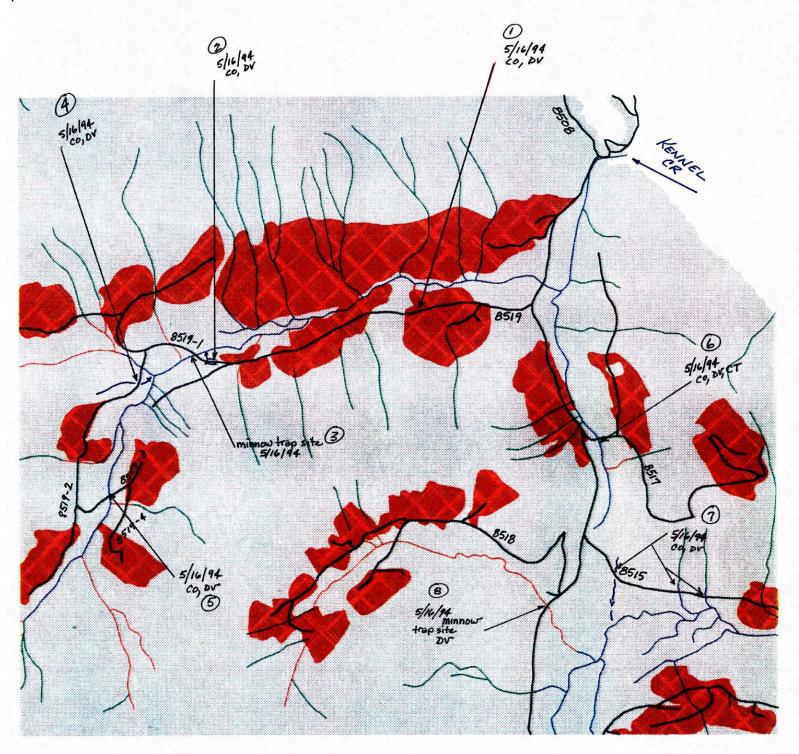
State of Alaska Bepartment of Fish and Game Nomination for Waters Impostant to Anadromous Fish

comous Water Cata	log Number of Waterway	112-50)-10-50		al name
of Waterway	Kennel Ce.		0505	me 100	ar name
ltion Deleti	on Correction	Backup	Informatio	n <u>×</u>	
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8-00100	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
coho	5/16/94		x (100+)	76 1	×
7V	5/16/94	Lorent St.	x (20+)		
DV	3/16/11				100
	all supporting document migration of anadromo				
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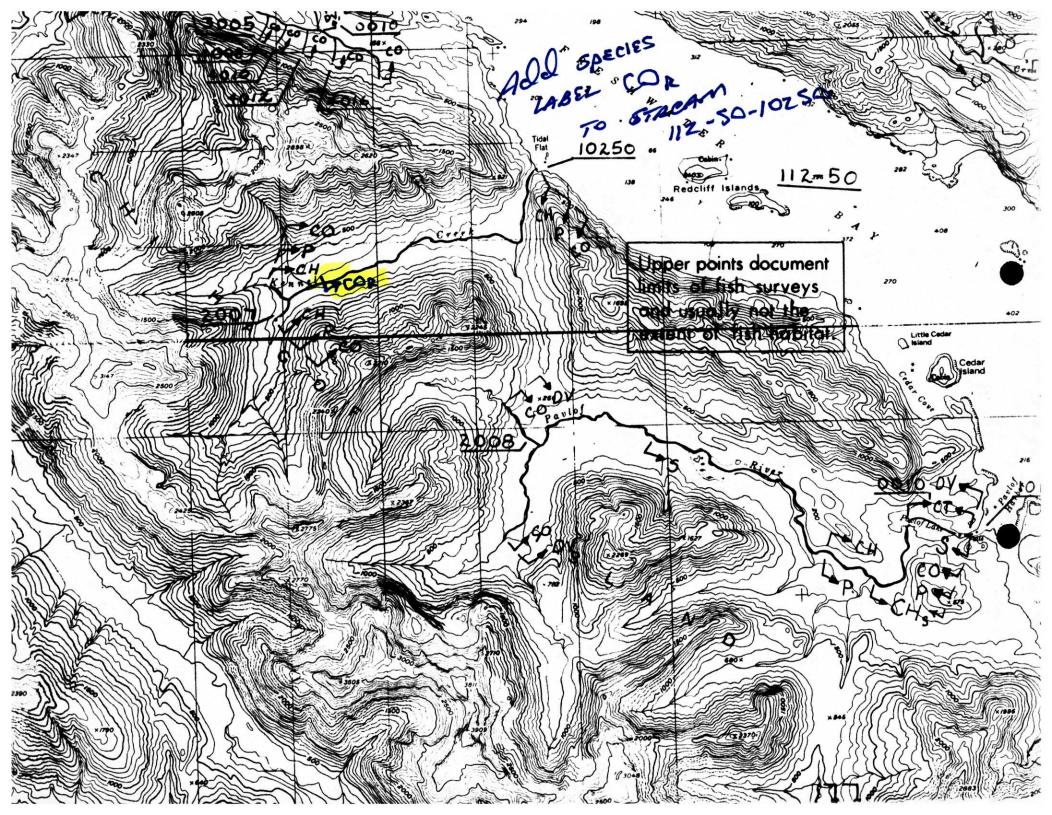
menus I've signed nomination and scrit to Ed. 11/25 Phil/Dave - Please enhance comments
1000 to answer greations and justify
the nomination of "important habitat
when < 5 ~ so, defente on habitat ~ Stream Nominations - Fish Surveys - Sitka Area 1994 shart soak R 0 Q time, etc, COMMENTS #CAPT HOW STAGE REF# FS # 8519; lower side of log culvert; other fish seen; up. limits of hab. 7/10ths mile up ro smolt 3 net FS #8519-1; 16"CMP; roadside ditch; DV also in ditch. Overwintering/spring-fed. Upperother achosen 1 net smolt FS # 8519-1; 2nd bridge; minnow trap/side rearing channels. Cold mainstem. sook true fry/smolt 3 100+/20+ net/trap FS # 8519-2; 16" CMP; blocked; available habitat above. other co seen. ffy) 42.2 net H CO pt 15 FS#8519-3; bridge site frv/smolt 5 3,2 net 6 FS # 8517; lots of fish in area @ bridge. 6 2,15,1 frv/smolt trap 8 other fish seen FS # 8515; n. side of river. Many small tribs/polygon needed in valley bottom. · capt 3 net fry/smolt 9 soak time FS #8510; bridge site S of 8518 jct. Minnow trap. Near upper limits/75' waterfall. smolts 6" 10 8 6 trap other fish seen FS # 8516; 36"CMP; close to upper limits. 2 net 11 smolt FS #8510/8514; LSB over stream. Many fish seen. 2 net smolt 10 12 FS # 8513; 60"squash CMP; 1.6 miles west of Wachusett Cr. Lots for fish visible; CT wa 11 2,2,1> fry/smolt_ net 13 est. of a adu 14 FS # 8513; 60' Hamilton bridge over stream. Lots of fry visible. Adult salmon remains f 12 1 net fry 15 FS # 8513; 2/10ths mile west of creek. Outfall of perched 48"CMP; block to upstream fi 13 2.2 dfry) net 16 near cove; NW fork near bottom of estuary. Extensive beaver dams. 14 25+ adult/spawning 17 hand Mainstem - 1000 adults from saltwater to 500' upstream. Beaver dams blocking easy p 50 hand adult 18 note 19 FS #8508; mp 2.3 from KC; 1st bridge. fry/smolt 20 15 3,39,9 ; trap FS# 8508; mp 2.72 from KC; 2nd bridge. 3,15 fry 21 note trap FS # 8508; mp 3.8 from KC; 48" CMP. 4,2 fry 22 note net FS #8508; mp 4.62 from KC; Hamilton bridge 110' long; both forks were trapped. 16, 10 frv/smolt 23 note trap FS # 8508; mp 4.9 from KC; 25' bridge, tannic. fry net 24 note FS #8509; mp .18 from jct; 1st bridge. 50 trap to 8" 25 note 26 Boat/foot survey from stream mouth upstream 200'. 16 10+/25+ 27 foot/net adults Boat/foot survey from mouth upstream 200'. adults 17 50+ foot/net 28 describe why CT FS # 8509; mp 1.67 from jct; 30' LSB, tannic. CT < 6" 18 5, 9 29 trap are believed and FS # 8509; mp 4.4 from jct; 6' dia x 40' CMP -perched. 35 trap to 7" 30 note 31 Mouth of stream to 1500' upstream. 500, 1200 foot surv adult 32 note 33 .75 miles west of Seal Cr. mouth. Stream entrance blocked at low tide. to the fish seen 2 net smolt 19 34 35 1000' upstream w/ CO -trap. # of pages 36 20 20, 3 net/trap adult/fry Post-It" Fax Note 7671 150'. 2 net frv 21 From 1 Phil Co. Co./Dept. Phone # 11/3/94 **Phil Mooney** Phone # Fax # Fax #

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KENNEL CR. - UPPER PAULOF RIVER

SITKA D4



MEMORANDUM

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME HABITAT and RESTORATION DIVISION

TO:

Ed Weiss

Habitat & Restoration Division

Anchorage

Dave Hardy

Area Habitat Biologist

Sitka

FROM:

THRU:

Phil Mooney

Habitat Biologist

Sitka

DATE: December 9, 1994

FILE NO:

TELEPHONE NO: 747-5828

SUBJECT:

1994 Stream Nominations -

Supplemental

ALASKA DEPT. OF FISH & GAME

DEC 14 1954

REGION II HABITAT AND RESTORATION

A number of items on the original chart submitted needed clarification and/or additional information. Enclosed you will find an updated chart to be used with the supplemental information below and the original maps. Please <u>remove</u> the original chart from the nomination package and replace it with this version.

While we were surveying streams this year we also gathered information from the Sitka Area Sportfish biologist, Art Schmidt, to help us intrepret some of results. He provided these general comments (paraphrased below):

1. Roadside ditches containing very small water volume were found to have coho and DV in them throughout the year, although in some cases they did dry up in mid-summer. How important are these ditches for fish habitat? Roadside ditches that intercept small drainages across a hillside often concentrate small flows and distribute them in different patterns than originally existed. If fish (anadromous and resident) are found in these ditches, they are obviously finding some suitable habitat. If the ditch is intercepting a spring-fed source of water that provides a constant flow (even if the volume is slight), overwintering fish can move into these areas and avoid anchor ice. A spring-fed source may also provide a constant source of water during drought periods and a more temperature regulated environment than surface waters can. For these reasons, spring-fed systems may be keystone components for fish survival. Some ditches may only provide seasonal habitat. They may intercept and transport fall rains and snowmelt through the fallwinter-spring-and early summer periods. The landscape that provides fish habitat is a dynamic system. It constantly changes due to seasonal and climate flucuations. Physical changes to it are also constantly occurring. Fish populations undergo seasonal distributions, as well as do their food base. Trying to second-guess the importance of a ditch here, small stream there, etc. for fish habitat is a hazardous

2 over-simplification of the system at work and we need to be cautious of dismissing components of a larger system. 2. Why did we fail to capture fish in a minnow trap placed in the mainstem when hundreds of fish were visible upstream in overflow areas? Failure to capture fish in a minnow trap placed in the mainstem when upstream many fry and smolts are visible in shallow, overflow or slow-moving tributaries is likely due to seasonal conditions. Spring flows containing snowmelt are generally colder and have more volume than after snowmelt periods. Fish metabolism and food resources are reduced in late fall, winter, and early spring. In early spring under high water conditions, smolts, emerging fry, and resident fish will seek out warmer, slow moving water thereby reducing the amount of energy needed to swim and maintain themselves. High water conditions also typically carry higher loads of sediment. Because overflow areas are shallow and slow moving, these sections of water will be slightly warmer, food resources will likely be more abundant, and bank cover will provide some protection from predation. 3. Why did we capture cutthroat trout in the upper reaches of a stream system and yet fail to have them represented in captures downstream when no physical barriers exist to their movement? Cutthroat trout do not compete well with other rearing fish. Capturing cutthroat in the upper reaches of a stream system and not finding them distributed downstream is fairly common. When pressured, cutthroat will retreat into upper tributaries and less preferred habitat. It is believed that this is one of the reasons cutthroat are so susceptible to losses of habitat in the upper stream reaches and finger tributaries. Seasonal changes in rearing fish distributions are common with different habitats preferred under different seasonal and edaphic conditions. Please use the information below to supplement the nomination sheets and chart. The reference # refers to the reference # column (A) found on the chart. Reference # 1. Approximately 6 additional CO smolts were seen in a 50' distance downstream from the culvert. Dolly Varden char were also present in the stream. This stream appears to be providing overwintering habitat for salmon and is a short distance (less than 1/4 mile from the Kennel Creek mainstem). 2. Although only 1 coho smolt was netted, more than a half dozen were observed along portions of the ditch. More than 10 DV were also counted in the ditch. The ditch parallels the road for more than 300' and gradually angles towards the mainstem of Kennel Creek, until it is within 80' of the mainstem. Water remained running in this ditch throughout the summer, even through extended dry periods, providing fish habitat.

3 3. Soak time of the minnow trap was approximately 1 hour. The trap was located in the mainstem and captured no fish. The bulk of the fish were located 100' upstream of the trap site in a shallow overflow area where water temperatures were warmer than the mainstem. The coho fry and DV were active and numerous. Two coho fry were netted for identification purposes and released. DV were observed but not captured. 4. Other fish, both coho fry and DV, were observed during a short walk (50') downstream from the culvert. We briefly looked for fish above the culvert and found none although suitable habitat exists for more than 1/4 mile. The culvert was partially blocked by debris on the uphill side and the lower side is perched >8". 6. The trap soaked for 45 minutes. Two coho fry, 15 DV, and one cutthroat were captured. Many other cohos and DV were seen above and below the trap site. It appeared that this is a very productive stream. 9. No other fish were seen due to snowcover that was still extensive here. Judging from the limited distance of stream we could survey, stream gradient, visible habitat and the two fish caught in a short distance, this stream provides adequate suitable fish habitat for additional fry/smolts. Re-survey at a later date was not accomplished this summer. 11. This stream has excellent fish habitat and appeared to be very productive. Stream flows did not noticeably vary after storm events. It is likely this stream is spring-fed and may provide overwintering habitat for fish. 18. Although we did not capture salmon species in the minnow trap, this stream is a tributary to Bayhead Cr., with pink and coho salmon species in it. The number of cutthroat captured indicates a good fish habitat condition. Without additional work, I can not say for sure that the DV or cutthroat are anadromous. This stream should be documented for cutthroat at this time. 19. Stream was not surveyed extensively due to boat anchoring problems and stormy conditions. Suitable fish habitat and stream gradient is present. FS personnel (Hoonah RD fisheries staff) said they have also seen coho fry in this stream. They list the lower portion of the stream as a Class I system. 21. Due to limited time and poor weather conditions, no attempt was made to capture more fish. Lighting was poor at the time of the survey. Adequate fish habitat does exist and provides rearing habitat for cohos.

	A	В	С	D	E	F	G	Н	ı	J	K	L	M
1	REF#	DATE	STREAM	NUMBER		QUAD	SECTION	TWNSHIP	RANGE	STREAM	NAME	SPECIES	
2			112-50-10	250 **trib		SITKA D4	NE1/4-15	46S	63E	unnamed		CO/DV	
3		2 5/16/94	112-50-10	250 **trib		SITKA D4	NW1/4-16	46S	63E	unnamed		CO/DV	
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5			112-50-10			SITKA D4	SE1/4-17	46S	63E	Kennel Cr		CO/DV	
6			112-50-10			SITKA D4	NE1/4-20	46S	63E	Kennel Cr		CO/DV	
7				250 **south	fork	SITKA D4	SE1/4-14	46S	63E	Kennel Cr		CO/DV/CT	
8				T									
9		7 5/16/94	112-50-01	00-0010		SITKA D4	23, 24	46S	63E	Pavlof Riv	er	CO/DV	
10			112-50-01				SW1/4-23	46S	63E	Pavlof Riv	er	DV only	
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17	1.	4 8/25/94	112-50-10	0050 **fork		SITKA D4	SW1/4-35	46S	64E	Wachuset	t Cr.	P	
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22	note	7/18/94	112-50-10	300-3003-4	4008	SITKA D4	SE1/4-32	45S	63E	Freshwate	er Cr.	CO/DV	
23	note	7/18/94	112-50-10	300-2001		SITKA D4	SW1/4-29	45S	63E	Freshwate	er Cr.	CO/DV	
24	note	7/18/94	112-50-10	300-2001-	3004		SW1/4-29		63E	Freshwate		CO/DV	
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OR-	A	T	N	0	P.	Q	R	S	T	U	V	W	X	Y
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2		1	3	net	smolt		FS # 8519	lower side	of log culv	ert; other f	ish seen; u	p. limits of h	nab. 7/10ths	mile up re
3		2	1	net	smolt		FS #8519-	1: 16"CMP	; roadside	ditch; DV a	lso in ditch.	Overwinte	ring/spring-	fed. Uppe
4			100+/20+	net/trap	fry/smolt		FS # 8519	-1; 2nd brid	dge; minnov	w trap/side	rearing cha	annels. Col	d mainstem	
5		_		net	fry		FS # 8519	-2; 16" CM	P; blocked;	available l	nabitat abo	ve.		
6				net	fry/smolt		FS#8519-3	3; bridge sit	te. Other co	hos seen l	out were so	attered due	to cold wa	ter temps.
7				trap	fry/smolt		FS # 8517							
8		+												
9		7	3	net	fry/smolt		FS # 8515	, n. side of	river. Many	small tribs	/polygon n	eeded in va	lley bottom	Dozens
10		8	6	trap	smolts 6"						trap 45 m	in. Near up	per limits/7	5' waterfa
11		9		net	smolt				close to up					
12	1	0	2	net	smolt		FS #8510/	8514; LSB	over stream	m. 20+ coh	os seen.			
13	1	1 2	2,2,1	net	fry/smolt		FS # 8513	; 60"squas	h CMP; 1.6	miles wes	t of Wachu	sett Cr.Doz	ens of coho	s visible;
14											1	6 1111	D	
15		2		net	fry		FS # 8513	; 60' Hamil	ton bridge	over stream	n. 20+ cond	try visible.	Dozens of	adult sair
16			CONTRACTOR OF THE PARTY	net	fry		FS # 8513	; 2/10ths m	nile west of	creek. Out	tall of perc	ned 48 CIVII	P; block to	pstream
17	A comment of the same of the s	4 2	25+	hand	adult/spawn	ing	near cove;	NW fork n	ear bottom	of estuary	. Extensive	beaver da	ms.	<u> </u>
	note		50	hand	adult		Mainstem	- 1000 adu	ilts from sa	itwater to 5	00 upstrea	m. Beaver	dams bloc	king easy
19		1							1/0 / /					
20		_		trap	fry/smolt				om KC; 1st		r soak ume	•		ļ
	note		3,15	trap	fry				rom KC; 2n					
22	note		4,2	net	fry		FS # 8508	; mp 3.8 fr	om KC; 48'	CMP.	44011-	b ath faul		
23	note		16, 10	trap	fry/smolt							ig; both for	ks were trap	pea.
24	note	1	2,1	net	fry				om KC; 25'		inic.			
25	note	_	50	trap	to 8"		FS #8509	mp .18 fro	om jct; 1st	bridge.				-
26									1		200'		-	
27			10+/25+	foot/net	adults				n stream m					
28			50+	foot/net	adults				n mouth up					ļ
29		8		trap	CT < 6"				from jct; 30					
	note	+	35	trap	to 7"		FS # 8508	; mp 4.4 II	om jct; 6' d	Ta X 40 CIVI	r -perchec	<u>-</u>		-
31		-	1000		 		Manual of a		FOO' upotro					
32	note	1	500, 1200	foot surv	adult		wouth of s	liearn to 1	500' upstre	alli.			-	-
33		1			 		75 11 1	weet of Co	ol Cr. mout	h Stroom	entrance h	locked at lo	w tide	
34		9	2	net	smolt		./o miles	west of Sea	ai Cr. mout	n. Sueam	entrance b	TOCKEU AL IC	T uue.	-
35								F (0)	O- LTE D	also in Gast o	100' Brid-	1000' upo	room w/ C/) tran
36			A STATE OF THE STA		adult/fry		200 yards	E of Seal	Cr. LTF. PI	I TE E	found in fin	+ 150' ups	tream w/ Co	J-liap.
37		21	2	net	fry		5 miles so	utneast fro	om Seal Cr.	LIF. Fry	iouna in tirs	St 150.		

	Α	Z	AA	AB	AC	AD	AE	AF
1	REF#							
2	1	d.						
3	2	imits.						
4	3							
5	4							
6	5							
7	6							
8								
9	7	coho seer	١.					
10	8		Negative.					
11	9							
12	10						L	
13	11	was 12"	in length. E	xcellent wa	ter quality	spring-fed?		
14					L			
15	12	n remains	from fall r	un still evid	ent on ban	ks.	<u> </u>	<u> </u>
16	13	h passage	e. 6+adult s	almon rem	ains from la	ast fall foun	d around ci	liveπ.
17	14							
	note	ssage.						
19								
20	15							-
	note							
	note							
	note							
	note							-
	note							
26							-	
27	16							-
28	17							
29	18						-	
30	note				-			-
31								-
	note							
33								-
34								
35								
36							1	
37	21				The second secon		T.	1